

Chapter 2

Making a Tincture

Basic Processes and Terminology



Early morning in the fallows of winter found me out in the middle of the garden, picking my way between the resting beds of roots and weeds, searching for signs of emerging life, of which there were scant few. I was taking a break from writing, renewing my brain and body with oxygen, and hoping for inspiration. Crows watched me from the oak tree in the nearby horse pasture, crows stark against the dim sky, blacker than the bare branches of the oak and as still as the clinging clots of mistletoe that also called that tree home. “No wonder crows are used for divination,” I was thinking. “They are constantly observing the movements of men.” My guess was they knew more about my habits than just about any other creature. Even if they didn’t have the power to predict absolutely when I would be dumping the compost bucket, spreading cover crop seed, turning over the soil, or planting corn, they at least had the patience to wait for these activities, knowing that food would eventually happen. “Well,” I thought, bending over to examine a tiny emerging seedling, apparently valerian, “if you crows are waiting for me

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to spread some more cover crop seed, you will have a pretty long wait.” I noticed that the cornstalks were almost completely fallen and that the few ears rejected or forgotten during harvest had been stripped of their protective husks and picked clean to the cob. The crows would be getting hungry. I guessed that gnawing hunger was the down side for an animal that preferred to conserve energy rather than work to find food. So I made my rounds, admittedly wishing for spring, trying to make my mind be as still and watchful as the crows. But I kept imagining what it would be like to convince a crow to dip its feet in black ink and then walk across white paper or smooth white rocks. This would make something like writing, like dancing stick figures, hieroglyphics, or the pictographs that sometimes haunted my dreams. Still thinking about crow’s feet, I returned to the seed house to work on the book about making medicines. I was hoping that my readers would find my writing more decipherable than the haphazard track of a crow and that they would gain an understanding of making tinctures, a process involving the twin, crow-like disciplines of activity and patience.

Terms

Tincture making has its own language—an unavoidable and necessary set of technical, obscure, and often antiquated words. Knowing these words is an initiation into the art of making medicinal extracts. Herbalism has its roots in a long history of extract making, and using this traditional language of extraction puts us all on common ground.

Tincturing: This is the process of making an herbal extract by steeping ground herb in a liquid menstruum, thereby infusing the liquid with the active constituents of the herb. These active constituents are sometimes known as “extractives.” The tincture itself is the finished product, a relatively stable solution of extractives that is preserved (usually with alcohol) against deterioration.

Herb: An herb is simply a plant—an annual, biennial, or perennial—which is planted or voluntarily emerges in the spring and dies back down again in the fall. But when used by herbalists, “the herb” is an ambiguous term referring to a medicinal plant, or the fresh or dried plant material used for making a medicinal

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preparation. Although this name may call up an image of the fresh or dried *green portions* of a plant, it is also a loosely defined catchall term for *any part* of the plant, even the root, used in herbal therapy.

Menstruum: Sometimes known as the “solvent,” the menstruum is the liquid portion of the tincture, usually consisting of a measured quantity of alcohol and water. The menstruum is always mixed in a clean vessel and then poured on top of the herb in the macerating container. Alcohol is used both because it is an excellent solvent for a wide range of constituents and because it preserves the extract. Water is used because it, too, is an excellent solvent for medicinal compounds. Some constituents are largely alcohol-soluble, while others are mainly water-soluble, and many herbs contain complex combinations of water- and alcohol-soluble constituents. As a consequence, the formula for each herb must take into account the kinds of constituents residing in the herb and their solubility, so that the finished tincture retains the activity of the herb and tastes like the herb itself.

Grinding: Sometimes known as “comminution,” this is the process where the fresh or dried herb is reduced in size to create more surface area of extraction. Fresh herbs are finely minced with a knife or ground to a pulp in a blender along with the menstruum. The herb-menstruum slurry should “vortex” (i.e. swirl around, forming a tiny tornado in the center of the mass) inside the blender, resulting in a homogeneous product. Dried herbs are preferably stored in the whole form and reduced to a coarse powder by rubbing through a screen or by grinding in an electric coffee grinder, hammer mill, or blender just prior to tincturing. The optimum dry particle size is approximately that of coarsely ground cornmeal. If the grind is too coarse, the menstruum cannot sufficiently contact the cell structure of the herb in order to extract the active constituents. If ground to a fine powder, the herb will tend to pack inside the macerating container, thereby disallowing sufficient flow of liquids around the particles, again compromising the extraction of active constituents from the herb.

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Macerating container: This is preferably a glass container with a wide mouth and a tight-fitting, corrosion-free, leakproof lid. The purpose of this container is to hold the macerating extract until it is time for pressing. Containers made of food-grade, high-density polyethylene (HDPE) are also acceptable for maceration of most herbs, as are stainless steel vessels. However, if the herb contains essential oils (e.g. anise, rosemary, or hyssop) then the tincture needs to be macerated and stored in glass.

Macerating extract: This is a name for the slurry of herb and menstruum during the process of maceration. In many cases the fresh herb pureed with menstruum looks a little like volcanic magma, and it is just as slow as molten rock to pour from the vessel into the pressing cloth.

Maceration: This is the process of steeping the ground herb in the menstruum for a period of (usually) three weeks, sufficient time for the liquid portion to become thoroughly saturated with extractives from the herb. Maceration is usually best accomplished at room temperature in a dark place, such as a cupboard.

Shaking: Sometimes known as “succussion,” this is the process where the macerating extract is thoroughly shaken in the macerating container to allow for complete contact between the menstruum and the herb. The container is grasped in both hands and vigorously agitated until the contents are thoroughly remixed. Shaking is not particularly important in making fresh herb tinctures, where the process of extraction is basically dehydration of the plant cell by alcohol. However, in dry herb extraction, the process of shaking is quite essential, because over time the dry herbs can clump at the bottom of the container, and agitation puts the herbal particles back into intimate contact with the solvent.

Labeling and record-keeping: Label all macerating containers and finished tinctures with the name of the herb and the date of tincturing. This is the minimum labeling required to keep track of what you are doing. For those who would like to take this one step further, here is a run-down of good manufacturing practices, which will allow you to keep better track of several tincturing runs without confusion. First, the macerating containers must be properly labeled with the common and Latin name of the herb

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and the starting date, which is the date when the herb and menstruum were first combined. This label, or an exact copy of it, will accompany the extract through all phases of maceration, pressing, settling, and filtering, in order to ensure the identity of the end product. Second, keep a tincturing logbook where you record all relevant details about the identity and source of the herb and the making of each tincture. This includes the dates, the formula, the weights and volumes of all components, the final volume yield, and special notes. This logbook will help you maintain consistency from one tincture to the next, keep track of any significant details that might help improve future tinctures, or perhaps elucidate the cause of the rare disaster that can occur. Third, give a consecutive lot number to each extraction run, recording this number both in your logbook and on your bottled tinctures. This will allow for full recall of all manufacturing details, including the irrefutable identity of the tincture, in order to avoid confusion or liability at a later date.

Pressing cloth: This is a multilayered piece of cheesecloth or a single layer of pressure-resistant polypropylene cloth designed for holding the macerating extract during pressing. Any sufficiently sized piece of fabric, such as linen, will also serve the purpose, but tensile strength is a necessary prerequisite. There is nothing quite so messy as cleaning up a “dandelion explosion” resulting from the failure of a pressing cloth under high pressure!

Pressing: This is the process wherein the macerating extract is thoroughly squeezed or “expressed,” thereby separating the herb from the liquid, which is now infused with the activity of the herb. This can be accomplished by hand. Drape the pressing cloth over a bowl, pour the macerating extract into it, close up the top, and by kneading, squeezing, and twisting, wring as much liquid into the bowl as your strength will allow. This can also be accomplished with a tincture press. A tincture press is composed of two parallel platens on a frame that is rigged with a hydraulic jack and a pan fitted with a drain hole and a hose. The macerating extract is poured into a pressing cloth inside the pan and the cloth is folded over the top of the mass of herb to prevent it from squeezing out the sides. Then the platens are jacked together,